associated earth sciences incorporated

January 20, 2022
Project No. 20180522E002

Issaquah School District
5150 220th Avenue SE
Issaquah, Washington 98029

Attention: Ladd Stejskal

Subject: Geotechnical Special Inspection Completion Letter
Issaquah Middle School No. 6
Permit BLD20-00011 (Walls 2, 3, 5, and 6)
1929 NW Talus Drive
Issaquah, Washington

As requested, this geotechnical completion letter summarizes our construction phase geotechnical engineering services for the referenced permit. Our participation on this project included completion of subsurface explorations, preparation of design phase geotechnical engineering reports, and completion of on-call site visits to observe geotechnical engineering aspects of construction phase work. This completion letter addresses only the referenced permit and is one of several completion letters that will be prepared during project closeout.

Summary of Services

Associated Earth Sciences, Inc. (AESI) completed 210 site visits related to the referenced permit between April 27, 2020 and January 08, 2022. Site visits were made on an on-call basis at the request of the contractor. Each site visit was documented by a Daily Field Report. Daily Field Reports were distributed to the owner, design team, contractor, and City at the time they were completed. Following is a summary of geotechnical special inspection items assigned to AESI under the above-referenced permit, along with numbers of previously distributed AESI Daily Field Reports in which each item was discussed.

- Observe Backfill, Compaction, Wall, and Rockery Stability: (Field Report: 345) The walls in this permit are top-down walls that are excavated to grade, and as such fill placement for these wall types is minimal. Small amounts of fill were needed, often to fill local voids between facing elements and the retained soil. In those instances we observed fill consisting of controlled density fill (CDF) or pea gravel.

- Observe Cast-in-Place Deep Foundation Elements: Augercast Piles: No augercast piles were used on Walls 2, 3, 5, or 6.

- Observe and Monitor Excavations: (Field Reports: 26-29, 78, 133, 160, 233).

- Monitor Erosion Control: Erosion control observations and reporting for the entire site began in March 2020 and is ongoing pending the completion of tasks not included in this permit.

- Observe Soil Nail Installation and Testing: (Field Reports: #39-40, 42, 44-52, 55-57, 64-68, 70, 71, 75, 76, 80, 82, 83, 85, 86, 88-92, 101-103, 107, 108, 110-112, 114, 116-119, 126-131, 134, 135, 138-149, 152-154, 158-160, 162-164, 168-172, 174, 175, 206, 209, 210, 212-214, 217, 218, 220-222, 224-229, 231, 232, 234-237, 239, 265, 268, 272-275, 278, 279, 283, 286, 287, 295, 308, 367, 371, 378-380, 388).

- Observe Tieback Installation and Testing: (Field Reports: #276, 281, 332-342, 344-355, 357-361).

- Verify Structural Fill and Compaction: Walls 2, 3, 5, and 6 are top-down shoring walls that are excavated to grade; no fill is directly associated with Walls 2, 3, 5, or 6. Localized filling of voids behind facing elements is discussed above in the first bullet point.

- Observe Subsurface Drainage Installation: (Field Reports: #62, 100, 122, 133, 236, 284, 285, 290-295, 308, 309, 363-366, 368, 369).

- Observe Soldier Pile Wall Installation: (Field Reports: #171, 324-330, 342, 344).

- Observe Vertical Element Installation: (Field Reports: #35-45, 79, 93-95, 97, 100-103, 123-126, 150-154, 173-176, 204, 205, 221, 222, 272, 277, 282-284, 346, 379, 383-387).

- Groundwater Monitoring: AESI observed the completion of wall drain features shown on the approved permit plans. A series of groundwater observation wells was installed across the site, and groundwater level monitoring for the project as a whole is ongoing. Groundwater level data has been distributed to the City of Issaquah periodically in memoranda uploaded by the Issaquah School District to the City of Issaquah.

- Monitoring Horizontal and Vertical Movement of Installed Soldier Pile and Soil Nail Walls During Construction: Shoring wall monitoring site-wide is still ongoing for walls that were recently completed. At this time frequency of shoring survey monitoring updates is biweekly. Notes on approved project plans call for biweekly monitoring during construction. Now that construction is complete AESI will coordinate with the design team to reduce the frequency of and eventually discontinue shoring monitoring. Recent shoring monitoring data have demonstrated little to no displacement of points that are being actively monitored.

We are not aware of any geotechnical engineering aspects of the referenced permit that are incomplete or in need of correction. To the best of our knowledge the geotechnical engineering aspects of the referenced permit were completed in accordance with our recommendations and with approved plans.

Closure

It has been our pleasure to be of continued service. If you have any questions, please do not hesitate to call.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

Kurt D. Merriman, P.E.
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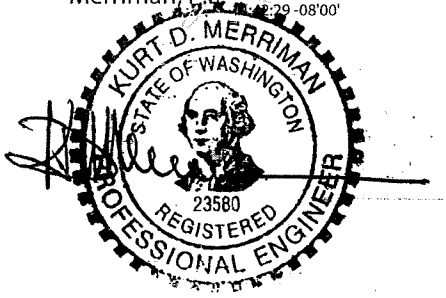

Bruce Guenzler

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